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The present application is a continuation-in-part of co-pending application Serial No. 09/209,952 filed on December 11, 1998 which in turn is a continuation-in part of U.S. Patent Application Serial No. 09/189,166 filed on November 9, Now patented, 6,828,349,
1998, which is a continuation-in-part of U.S. Patent Application Serial No. 09/129,253 filed on August 5, 1998, which is now issued U.S. Patent No. 6,057,368, all of which are incorporated herein by reference.

This invention was made with Government support under contract number DE-AC02-98CH10886, awarded by the U.S. Department of Energy. The Government has certain rights in the invention.

## **BACKGROUND OF THE INVENTION**

This invention relates to the use of an irreversible inhibitor of GABAtransaminase for the treatment of substance addiction and modification of behavior associated with substance addiction. Substance addiction, such as drug abuse, and the resulting addiction-related behaviors are enormous social and economic problems that continue to grow with devastating consequences.

The addictive liability of drugs of abuse, such as for example, cocaine, nicotine, methamphetamine, morphine, heroin, ethanol, phencyclidine, methylenedioxmethamphetamine or other drugs of abuse has been linked to their pharmacological actions on mesotelencephalic dopamine (DA) reinforcement/reward pathways in the central nervous system (CNS). Dopaminergic transmission within these pathways is modulated by gamma-amino butyric acid (GABA).

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